

IN THE CLAIMS

Attached is a listing of the claims in accordance with the revised format of amending.
Claims 3, 59, 62 and 73 have been currently amended.

1. (Original) An anastomosis connector; comprising:
a plurality of ring segments, together defining a radially expandable ring-like shape having a lumen;
at least one pivot bar coupled to at least one of said ring segments; and
at least one spike mounted on said pivot bar and rotatable around said pivot bar,
wherein radial deformation of said ring-like shape does not substantially directly affect said spike rotational position.

2. (Original) A connector according to claim 1, wherein rotation of the pivot bar is mechanically decoupled from radial deformation of ring-like shape.

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3. (Currently amended) A connector according to claim 2, wherein said at least one pivot bar comprises at least two pivot bars, wherein said at least one spike is mounted on a first one of said pivot bars and said first pivot bar is mounted on the other pivot bar.

4. (Original) A connector according to claim 1, wherein said at least one spike is pointed towards said ring-like shape.

5. (Original) A connector according to claim 1, wherein said at least one spike is pointed away from said ring-like shape.

6. (Original) A connector according to claim 1, wherein said at least one spike comprises at least two spikes, each mounted on a separate pivot bar, wherein said spikes point in opposite directions along an axis of said connector.

7. (Original) A connector according to claim 1, wherein said connector is designed such that said at least one spike remains outside of a side vessel in an end-to-side anastomosis.

8. (Original) A connector according to claim 1, wherein said connector is designed such that said at least one spike enters a side vessel in an end-to-side anastomosis.
9. (Original) A connector according to claim 1, wherein said pivot bar is comprised in a spike element.
10. (Original) A connector according to claim 9, wherein said spike element comprises two opposing spikes.
11. (Original) A connector according to claim 9, wherein said spike element interconnects two adjacent ring segments.
12. (Original) A connector according to claim 9, wherein said spike element is attached to only a single ring element.
13. (Original) A connector according to claim 1, wherein said at least one spike has a tip adapted to penetrate a blood vessel.
14. (Original) A connector according to claim 1, wherein said at least one spike has a tip adapted to lay against a blood vessel without penetrating it.
15. (Original) A connector according to claim 1, wherein said connector is heat-treated to have said at least one spike perpendicular to said ring.
16. (Original) A connector according to claim 1, wherein said connector is heat-treated to have said at least one spike parallel to said ring.
17. (Original) A connector according to claim 1, wherein said connector is heat-treated to have said at least one spike bend.
18. (Original) A connector according to claim 1, wherein said connector is heat-treated such that said at least one spike does not bend.

19. (Original) A connector according to claim 1, wherein said connector is heat-treated such that said pivot bar is twisted.

20. (Original) A connector according to claim 1, wherein said connector is heat-treated such that said pivot bar is not twisted.

21. (Original) A connector according to claim 1, wherein said pivot bar is within an axial extent of said ring-like shape.

22. (Original) A connector according to claim 21, wherein said pivot bar is substantially centered relative to said ring like shape.

23. (Original) A connector according to claim 1, wherein said pivot bar is outside an axial extent of said ring-like shape.

24. (Original) A connector according to claim 1, wherein said pivot bar is comprised in a pivot mechanism.

25. (Original) A connector according to claim 24, wherein said pivot mechanism is directly mounted onto at least one of said ring elements.

26. (Original) A connector according to claim 24, wherein said pivot mechanism is coupled via a single extension to at least one of said ring elements.

27. (Original) A connector according to claim 24, wherein said pivot mechanism is coupled via at least two extensions to at least one of said ring elements.

28. (Original) A connector according to claim 24, wherein said pivot bar is coupled to said pivot mechanism via a hinge at each end of said pivot bar.

29. (Original) A connector according to claim 28, wherein said hinge comprises a thickening of said mechanism relative to said pivot bar.

30. (Original) A connector according to claim 24, wherein said connector comprises a plurality of alternating ring segments and pivot bar mechanism and wherein said pivot bar mechanisms are axially staggered, to allow a greater radial compression of said ring-like shape.

31. (Original) A connector according to claim 1, wherein said pivot bar is straight.

32. (Original) A connector according to claim 1, wherein said pivot bar is piece-wise straight.

33. (Original) A connector according to claim 1, wherein said pivot bar is curved.

34. (Original) A connector according to claim 1, wherein said connector is packaged.

35. (Original) A connector according to claim 34, wherein said packaging indicates a particular vessel type for said connector and for which said connector is adapted.

36. (Original) A connector according to claim 35, wherein said vessel type comprises a femoral artery.

37. (Original) A connector according to claim 35, wherein said vessel type comprises an aorta.

38. (Original) A connector according to claim 34, wherein said packaging indicates a particular vessel size for said connector and for which said connector is adapted.

39. (Original) A connector according to claim 34, wherein said packaging indicates a particular vessel wall thickness for said connector and for which said connector is adapted.

40. (Original) A connector according to claim 39, wherein said ring-like shape has an axial extent smaller than said wall thickness.

41. (Original) A connector according to claim 34, wherein said packaging indicates a particular connection geometry for said connector and for which said connector is adapted.

42. (Original) A connector according to claim 41, wherein said geometry is a side-to-end geometry.

43. (Original) A connector according to claim 34, wherein said packaging indicates a particular oblique angle geometry for said connector and for which said connector is adapted.

44. (Original) A connector according to claim 1, wherein said at least one spike is cut out of an opposing spike of said connector.

45. (Original) A connector according to claim 1, wherein at least one of said ring segments comprises
a plurality of axially spaced elements.

46. (Original) A connector according to claim 45, wherein said plurality of elements comprises at least three elements.

47. (Original) A connector according to claim 45, wherein said plurality of elements comprises at least four elements.

48. (Original) A connector according to claim 45, wherein said plurality of elements comprises at least five elements.

49. (Original) A connector according to claim 45, wherein all of said plurality of elements have a same geometry.

50. (Original) A connector according to claim 45, wherein at least two of said plurality of elements have mirrored geometries.

51. (Original) A connector according to claim 45, wherein at least one of said plurality of elements has a single curve geometry.

52. (Original) A connector according to claim 45, wherein at least one of said plurality of elements has a dual curve geometry.

53. (Original) A connector according to claim 45, wherein at least one of said plurality of elements has at least three curves defined thereby.

54. (Original) A connector according to claim 45, wherein at least one of said plurality of elements has a varying width.

55. (Original) A connector according to claim 45, wherein all of said plurality of elements have a constant width.

56. (Original) A connector according to claim 45, comprising a strain dissipation element at a point of connection of at least one of said elements and a spike element to which said ring segment is attached.

57. (Original) A connector according to claim 56, wherein said strain dissipation element comprises a thickening of said axially spaced element.

58. (Original) A connector according to claim 57, wherein said thickening defines an aperture.

59. (Currently amended) A method of everting a blood vessel, comprising:
engaging a tip of said vessel at a plurality of points around its circumference;
inverting said tip by inverting said engaged points; and
pulling said inverted points towards a distal end of said blood vessel.

60. (Previously presented) A method according to claim 59, wherein said plurality comprises at least four points.

61. (Original) A method according to claim 59, wherein said engaging comprises engaging using forceps and wherein said inverting comprises rotating said forceps.

62. (Currently amended) A method according to any one of claims 59-61, wherein said pulling comprises pulling different ones of said points different amounts.

63. (Original) Apparatus for graft eversion of a graft over a shaft having a tip, comprising:
a handle for engaging said shaft;
a plurality of forceps arranged to engage a tip of said graft where it protrudes from said shaft; and
a plurality of joints, each one associated with one of said forceps, for rotating said forceps pulling a tip of each of said forceps axially along said shaft.

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64. (Original) A method of measuring a graft size, comprising:
mounting a tip of said graft on two extensions, one extension coupled to a spring and one extension coupled to a handle;
manipulating said handle such that said extensions separate;
reading a measurement on a scale coupled to said spring; and
selecting an anastomosis connector responsive to said read measurement.

65. (Original) A method according to claim 64, comprising further manipulating said handle to stretch said graft tip.

66. (Previously presented) A hole puncher, comprising:
a sharp tip for forming a puncture in a blood vessel;
a shaft having a varying diameter and having a depression formed therein for engaging a wall of said blood vessel, said diameter substantially matching a diameter of said tip at one end of the shaft, said diameter increasing away from said tip for a first distance and said diameter then defining a slope of diminishing diameter towards said depression; and
an outer tube mounted on said shaft and having an end, said outer tube having an inner diameter of said end that is in a range of diameters defined by said slope of diminishing diameters.

67. (previously amended) A puncher according to claim 66, wherein said end of said outer tube has a smaller outer diameter than a more proximal portion of said outer tube.

68 (Original) A puncher according to claim 66 or claim 67, wherein said diminishing diameter slope is obliquely arranged around said shaft.

69. (Original) A method of forming an oblique anastomosis connector, comprising:
providing a non-oblique anastomosis connector;
mounting said connector in a restraint;
manipulating said restraints to deform said connector to a desired degree of obliqueness;
and
heat-treating said connector after said manipulation, to maintain said distortion.

70. (Original) A method according to claim 69, comprising heat-treating said connector prior to said mounting, to train a deformation of a spike portion of said connector.

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Cand 71. (Original) A side mounted delivery system, comprising:
a handle including an opening in its side;
a graft delivery tool adapted to fit through said opening; and
a groove and projection mechanism slidably interconnecting said tool and said handle.

72. (Original) A system according to claim 71, comprising a snap-lock mechanism for axially fixing said handle relative to said tool.

73. (Currently amended) A method according to any one of claims 59-61, wherein said points are inverted simultaneously.